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10/587,302	07/26/2006	**Ralf Wnuk**	51540	6536

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EXAMINER	
ANDERSON, DENISE R	

ART UNIT	PAPER NUMBER
1797	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/587,302	WNUK, RALF	
	Examiner	Art Unit	
	Denise R. Anderson	1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 July 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☒ Claim(s) *5 and 9* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 July 2006* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *26 July 2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the free-wheeling sleeve must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. In the patentability analysis below, the examiner will interpret this limitation to be a part of a coupler since applicant states, at ¶ 25, lines 13-14 that "[t]hese free-wheeling sleeves and free-wheeling devices 56 are prior art so that they will not be detailed here" and couplers are known in the art. See for example, Figure 1 of Sindorf et al. (EP0900584A1, Mar. 3, 1999 – Abstract, Patent, Translation) where a coupler is shown between plate 17 and foot camp 21 and a coupler is also shown between clutch opening 15 and multi-kant set 16.

2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet"

pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claim 5 is objected to because of the following informality: In line 2, "a drive (34)" should read "the drive (34)." Appropriate correction is required.

4. Claim 9 is objected to because of the following informality: In line 2, "the fluid outlet (26)" should read "a fluid outlet (26)" since there is no antecedent basis for the fluid outlet in claim 1 or 9.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim 5, the phrase "especially in the form of" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d). In the patentability analysis below, the examiner will interpret the limitation to be that a pneumatic motor is attached to the drive part (34).

7. Claims 8 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are listed below:

> *Claim 8. (currently amended) The filter device as claimed in claim 2, wherein the filter outlet (22) is located on the edge side in that part (14) of the filter housing (10) which is facing the drive (34) and wherein the other part (12) of the housing (10) can be removed as a kind of cover and towards its free end has a cavity (60) with an axial extension which corresponds more or less to the overall length of the filter elements (28).*
>
> *Claim 9. (currently amended) The filter device as claimed in claim 1, wherein the filter inlet (20) and the fluid outlet (26) for the backflushing quantity are configured in that part (14) of the filter housing (10) which extends between the filter outlet (22) and the drive (34).*

What does this mean?

8. In the patentability analysis below, the examiner will interpret claim 8 to mean that (1) the filter housing 10 has a cavity 60 in which the filter elements 28 reside; (2) the filter housing can be split into two parts at "part (14)" and that one of the parts is called "the other part (12);" (3) the outlet(22) sits between the drive and the "part (14)"; and (4) the outlet (22) is located on the edge of "part (14)."

9. In the patentability analysis below, the examiner will interpret claim 9 to mean that both the filter inlet 20 and a fluid outlet 26 for backflushing, are located between filter outlet 22 and drive 34.

Keying the Claimed Structure to the Prior Art

10. Given the above 112 rejections for indefiniteness, the claimed structure will be keyed to the prior art to aid in the patentability analysis to follow. The key appears in the table below.

TABLE 1: KEYING CLAIMED STRUCTURE TO PRIOR ART.	
Claimed Structure.	***Prior Art.***
Filter device, Fig. 1.	Sindorf et al., Fig. 1.
Filter elements (28).	Sindorf et al., Fig. 1, filter insert 12.
Inlet opening (46).	Sindorf et al., Fig. 1, opening between filter insert 12 and disk opening 18.
Filter housing (1).	Sindorf et al., Fig. 1, filter housing 1.
Filter inlet (20).	Sindorf et al., Fig. 1, cloudy inlet 5.
Filter outlet (22).	Sindorf et al., Fig. 1, filtrate discharge opening 6.
Fluid outlet (26).	Sindorf et al., Fig. 1, back rinsing channel 28.
Edge part (14).	Sindorf et al., Fig. 1, bearing ring 14.
Other part (12).	Sindorf et al., Fig. 1, header 3 above multi-kant sets 16.
Cavity (60).	Sindorf et al., Fig. 1, chamber 11.
Pivoting device (30).	Sindorf et al., Fig. 1, header 3 and footer 2 described as follows, "filter housing 1 which carries 2 at the foot releasable connected . . . and at the head . . . likewise releasable connected header 3," Translation, ¶ 12, lines 1-3.
Pivoting axis (36).	Sindorf et al., Fig. 1, extends longitudinally along axis 10.
Receiving element (32).	Sindorf et al., Fig. 1, header 3 and footer 2 above and below the filter insert 12.
End parts (38, 40).	Sindorf et al., Fig. 1, header 3 and footer 2 that are just above and just below the filter insert 12.
Drive part (52).	Sindorf et al., Fig. 1, axis 10.
Free-wheeling device (56).	Sindorf et al., Fig. 1, center part of plate 17 and the coupler part [between plate 17 and foot camp 21] that is fixedly attached to plate 17.
Drive (34).	Sindorf et al., Fig. 1, rotary drive 4.
Driven part (54).	Sindorf et al., Fig. 1, the coupler part [between plate 17 and foot camp 21] that is fixedly attached to foot camp 21.
Sealing means (42).	Sindorf et al., Fig. 1, "peripheral seal in a cylindrical bearing face 20 of the filter housing 1," Translation, ¶ 14, line 7

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1-6 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Sindorf et al. (EP0900584A1, Mar. 3, 1999 – Abstract, Patent, Translation).

13. Regarding claim 1, Sindorf et al. discloses a "backwashing filter (applicant's filter device) [that] contains a number of independent filter candle elements seated in a rotating plate so that each element can be moved into an isolated backwash chamber." Sindorf et al., Abstract, lines 1-2. Specifically, in Figure 1, Sindorf et al. teaches a filter housing (filter housing 1) with four filter chambers 11, each containing a filter element (filter insert 12). The Sindorf et al. filter housing has an inlet (Fig. 1, cloudy inlet 5) and an outlet (Fig. 1, filtrate discharge opening 6). The Sindorf et al. filter elements are moved in succession from their filtration position into the backflushing position and back into the filtration position by means of a pivoting device (Fig. 1, header 3 and footer 2 described as follows, "filter housing 1 which carries 2 at the foot releasable connected . . . and at the head . . . likewise releasable connected header 3," Translation, ¶ 12, lines 1-3). In summary, Sindorf et al. anticipates claim 1.

14. Regarding claim 2, the Sindorf et al. filter element has a pivoting device (Fig. 1, header 3 and footer 2 described as follows, "filter housing 1 which carries 2 at the foot releasable connected . . . and at the head . . . likewise releasable connected header 3," Translation, ¶ 12, lines 1-3) with a receiving element (Fig. 1, header 3 and footer 2 above and below the filter insert 12) for holding the filter elements (Fig. 1, filter inserts 12). Sindorf et al. teaches that the receiving element is pivotally mounted within the filter housing (Fig. 1, filter housing 1) around a pivoting axis (Fig. 1, extends longitudinally along axis 10) and the pivoting motion is done with a drive (rotary drive 4). In summary, Sindorf et al. anticipates claim 2.

15. Regarding claim 3, Sindorf et al. discloses that the receiving element (Fig. 1, header 3 and footer 2 above and below the filter insert 12) has two opposing end parts between which the filter elements (Fig. 1, filter insert 12) extend and the bottom end part has a sealing means (Fig. 1, "peripheral seal in a cylindrical bearing face 20 of the filter housing 1," Translation, ¶ 14, line 7). In summary, Sindorf et al. anticipates claim 3.

16. Regarding claim 4, Sindorf et al. discloses that the filter elements (Fig. 1, filter inserts 12) are configured within the filter housing (Fig. 1, filter housing 1) and are coaxial with the pivoting axis (Fig. 1, extends longitudinally along axis 10). Sindorf et al. further teaches a rod-like drive part (Fig. 1, axis 10) that detachably connects the two end parts (Sindorf et al., Fig. 1, header 3 and footer 2 above and below the filter inserts 12) via a screw connection. Specifically, Sindorf et al. discloses there is a screw connection at bearing ring 14 to "releasable clutch plate 13" and that the rotator end is fixed to perforated plate 17. Sindorf et al., Translation, ¶ 13, lines 8-10 and ¶ 14, lines 1-2. In summary, Sindorf et al. anticipates claim 4.

17. Regarding claim 5, Sindorf et al. discloses that the drive part (Fig. 1, axis 10) is driven by the drive (rotary drive 4) which is connected to a pneumatic motor (¶ 18, line 10 where it is stated, "Pneumatic motor formed rotary drive 4 connected.") which supplies air or gas through compressed air system 38 through switching valve 40 to cause the recited back and forth motion for the driven part (Fig. 1, the coupler part [between plate 17 and foot camp 21] that is fixedly attached to foot camp 21). This back and forth motion translates to the free-wheeling device (Fig. 1, center part of plate 17 and the coupler part [between plate 17 and foot camp 21] that is fixedly attached to plate 17) and, from there, to the drive part (Fig. 1, axis 10) of the receiving

element (Fig. 1, header 3 and footer 2 above and below the filter insert 12). In summary, Sindorf et al. anticipates claim 5.

18. Regarding claim 6, in Figure 1, Sindorf et al. discloses that the free-wheeling device (Fig. 1, center part of plate 17 and the coupler part [between plate 17 and foot camp 21] that is fixedly attached to plate 17) on the bottom is formed from a free-wheeling sleeve, such as "opening out of round 15" shown on the top of clutch plate 13. As such, the free-wheeling device (Fig. 1, center part of plate 17 and the coupler part [between plate 17 and foot camp 21] that is fixedly attached to plate 17) delivers the power of the drive (Fig. 1, rotary drive 4) to the drive part (Fig. 1, axis 10) in one direction but not the opposite direction, as recited. In summary, Sindorf et al. anticipates claim 6.

19. Claim 9 was rejected above under 35 U.S.C. 112, second paragraph, as being indefinite. As was stated there, the examiner will interpret claim 9 to mean that both the filter inlet 20 and a fluid outlet 26 for backflushing, are located between filter outlet 22 and drive 34. Sindorf et al. discloses that the four recited structures are arranged in the filter device, bottom to top, as follows: filter outlet 22 (Fig. 1, filtrate discharge opening 6), fluid outlet 26 (Fig. 1, back rinsing channel 28), filter inlet 20 (Fig. 1, cloudy inlet 5), and drive 34 (Fig. 1, rotary drive 4). As such, both the filter inlet 20 and a fluid outlet 26 for backflushing are located between filter outlet 22 and drive 34, as recited. In summary, Sindorf et al. anticipates claim 9.

20. From the above patentability analysis, Sindorf et al. anticipates claims 1-6 and 9.

Claim Rejections - 35 USC § 103

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

22. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

23. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sindorf et al. (EP0900584A1, Mar. 3, 1999 – Abstract, Patent, Translation), as applied to claim 2 above.

24. Claims 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sindorf et al. (EP0900584A1, Mar. 3, 1999 – Abstract, Patent, Translation) as applied to claims 1 and 2 above, and further in view of Wnuk et al. (U.S. Patent Pub. No. 2003/0213127 A1, Nov. 20, 2003) for the specifics of the filter element.

25. Claim 8 was rejected above under 35 U.S.C. 112, second paragraph, as being indefinite. As was stated there, the examiner will interpret claim 8 to mean that (1) the filter housing 10 has a cavity 60 in which the filter elements 28 reside; (2) the filter housing can be split into two parts at "part (14)" and that one of the parts is called "the other part (12);" (3) the outlet (22) sits

between the drive 34 and the "part (14)"; and (4) the outlet (22) is located on the edge of "part (14)."

26. Regarding claim 8, Sindorf et al. discloses the claimed invention and further teaches that the filter housing (Fig. 1, filter housing 1) has a cavity (Fig. 1, chamber 11) in which the filter elements reside (Fig. 1, filter inserts 12). Sindorf et al. discloses that the filter housing can be split in to two parts at "part (14)" (Fig. 1, bearing ring 14) and that one of the parts is "other part (12)" (Fig. 1, header 3 above multi-kant sets 16)" The Sindorf et al. locates the "part (14)" (Fig. 1, bearing ring 14) between the drive (Fig. 1, rotary drive 4) and the outlet 22 (Fig. 1, filtrate discharge opening 6) instead of locating the outlet 22 in the middle, as recited. Sindorf et al. locates the outlet 22 (Fig. 1, filtrate discharge 6) away from the edge of "part (14)" (bearing ring 14) instead of at the edge. With respect to these last two limitations, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have arranged the Sindorf et al. outlet and the Sindorf et al. "part (14)" as recited since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

27. In summary, Sindorf et al. discloses or suggests all claim 8 limitations.

28. As was stated above, claims 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sindorf et al., in view of Wnuk et al. for the specifics of the filter element.

29. Sindorf et al. discloses the claimed invention and further teaches the filter elements (Figs. 1-4, filter inserts 12) are configured diametrically opposite each other around the pivoting axis (Fig. 1, extends longitudinally along axis 10) in the filter housing (Fig. 1, filter housing 1), as

recited in claim 7. In Figure 1, Sindorf et al. further teaches that the filter elements have a bottom-facing opening between the filter element and disk openings 18, as is also recited in claim 7.

30. Sindorf et al. discloses the claimed invention except that the flow is reversed through the filter device. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have arranged the Sindorf et al. filter device parts so that the flow was reversed through the filter device, since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167.

31. Sindorf et al. discloses the claimed invention except that the drive is attached to the top of the filter housing instead of the bottom. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have attached the drive to the bottom of the Sindorf et al. filter housing instead of the top because of the equivalence of drive located at the top and a drive located at the bottom for their use in the mechanical arts and the selection of either of these known equivalents to drive the pivot device would be within the level of ordinary skill in the art.

32. Sindorf et al. discloses the claimed invention except for the conical filter element [claim 7] that is a tubular wedge-wire screen filter element [claim 10]. Wnuk et al. teaches such a tubular wedge-wire screen filter element in Figures 1-3. Wnuk et al. further teaches, "The present invention relates to a process for production of conical or frustoconical filter elements, slotted tube filter elements in particular. The support structure of the filter element is formed of a plurality of support rods around which at least one wire profile is wound in individual turns. Slots are left clear in the wire profile through which a fluid may pass." Wnuk et al., ¶ 1, lines 1-

7. Wnuk et al. discloses that such a filter element "is simple and cost-effective and which achieves improved filtration results" because "the overall structure is very rigid and the filter screen is more or less self-supporting to increase the overall stability of the filter element." Wnuk et al., ¶ 5, lines 2-5 and ¶ 8, lines 1-4. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the Sindorf et al. filter element a conical [claim 7], wedge-wire screen filter element [claim 10] as taught by Wnuk et al., since Wnuk et al, states at ¶ 5, lines 2-5 and ¶ 8, lines 1-4, that such a modification would produce a filter element that "is simple and cost-effective and which achieves improved filtration results" because "the overall structure is very rigid and the filter screen is more or less self-supporting to increase the overall stability of the filter element."

33. Sindorf et al., in view of Wnuk et al., discloses the claimed invention except for explicitly stating that the wide part of the conical filter element is over the opening to the pivoting device. Wnuk et al. does disclose that "the filter screen is more or less self-supporting to increase the overall stability of the filter element" which implies that the more stable arrangement for the Sindorf et al. filter device would be to have the wide part of the conical filter element over the opening to the pivoting device. Wnuk et al., ¶ 8, lines 2-4. To recap, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have placed the wide part of the conical filter element over the opening to the pivot device, since Wnuk et al. implies at ¶ 8, lines 2-4, that increased filter element stability is desirable when Wnuk et al. states "the filter screen is more or less self-supporting to increase the overall stability of the filter element"

34. In summary, Sindorf et al., in view of Wnuk et al., discloses or suggests all limitations recited in claims 7 and 10.

Conclusion

35. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Denise R. Anderson whose telephone number is (571)270-3166. The examiner can normally be reached on Monday through Thursday, from 8:00 am to 6:00 pm.

36. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter D. Griffin can be reached on 571-272-1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

37. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DRA

/Walter D. Griffin/
Supervisory Patent Examiner, Art Unit 1797